

CLAIMS

1. An end position detector for movable switch parts, comprising a rod assembly and a housing, into which the rod assembly penetrates and in which at least one sensor for sensing an end position of the rod assembly is arranged, characterized in that the rod assembly is connected to the movable switch part (3) such that it can be pivoted in a vertical plane that lies transverse to the longitudinal direction of the rails, and in that the rod assembly comprises at least one rod (8) of circular cross section, wherein said rod (8) in its region that penetrates into the housing (12) in a sealed fashion carries on its periphery at least one switching flank (13) that cooperates with a switch contact (16).
2. End position detector according to Claim 1, characterized in that the housing (12) is connected to a stationary part of the switch such that it can be pivoted in a vertical plane that lies transverse to the longitudinal direction of the rails.
3. End position detector according to Claim 1 or 2, characterized in that the pivot support is achieved by utilizing elastic connecting elements and/or spherical bearings.
4. End position detector according to Claim 1, 2 or 3, characterized in that the rod assembly is connected to the movable switch part (3) such that it can be displaced in the longitudinal direction of the rails.
5. End position detector according to one of Claims 1 to 4, characterized in that the rod assembly is connected to a vertical bolt (10) that is guided in a sliding fashion in an oblong hole (14) that essentially extends in the longitudinal

direction (15) of the rails and is arranged in a base plate (4) of the movable switch part (3).

6. End position detector according to one of Claims 1 to 5, characterized in that the bolt (10) has a spherical contact surface (20) or carries a sliding ring with spherical contact surface in the region of its section that penetrates into the oblong hole (14).

7. End position detector according to one of Claims 1 to 6, characterized in that the rod (8) is connected to the bolt (10) in an angularly rigid fashion, preferably at an angle of 90°, via a connecting element (9).

8. End position detector according to one of Claims 1 to 7, characterized in that the rod (8) or the connecting element (9) engages on the bolt (10) via spring elements (23) that act in the direction of the longitudinal axis (25) of the bolt (10).

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9. End position detector according to one of Claims 1 to 8, characterized in that the switching flank (13) can be adjusted in the axial direction of the rod (8).

10. End position detector according to Claim 9, characterized in that the switching flank (13) is realized in the form of the end face of a tube (32) that can be screwed on the rod (8).

11. End position detector according to one of Claims 1 to 10, characterized in that the effective length of the rod (8) can be varied and adapted to the respective travel stroke of the movable switch part (3).

12. End position detector according to one of Claims 1 to 11, characterized in that the rod (8) is provided with an outside thread (26) on its end that faces the movable switch part (3),

wherein the rod can be screwed into an inside thread of a part that is connected to the movable switch part (3), preferably the connecting element (9), and fixed in the respective position.

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13. End position detector according to one of Claims 1 to 12, characterized in that the rod assembly and the housing (12) are accommodated in a trough-like sleeper (5) or in a stationary switch part.

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14. End position detector according to one of Claims 1 to 13, characterized in that the housing (12) comprises a guide tube (11), the length of which is greater than the maximum travel stroke of the movable switch part (3), wherein the rod (8) is  
15 guided in said guide tube in a sliding fashion.

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15. End position detector according to one of Claims 1 to 14, characterized in that the switch (16) comprises a spring-loaded plunger (29) that engages into the groove defined by the switching flank (13) in the correct end position of the movable switch part (3).